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[Continued on next page]

(54) Title: USE SINGLE NUCLEOTIDE POLYMORPHISM IN THE CODING REGION OF THE PORCINE LEPTIN RECEPTOR GENE TO ENHANCE PORK PRODUCTION

GCACCTGTTTGAGCACTTGGAAAGTTAAATAATTATTGTTGGAGACTGCATGTTTTAATCCTTAGA  
TACTTCCCTATTTATGTCTTAGTCAAAATGATTAATTGCTTTTCTATGTGTCTTTTAAATGTCCT  
AACA GAA TTT ATT TAT GTG ATA ACT GCA TTT GAC TTG

E F I Y V I T A F D L

GCA TAT CCA ATT ACT CCT TGG AAA TTT AAG TTG TCT TGC ATG CCA  
A Y P I T P W K F K L S C M P

CCA AAT ACA ACA TAT GAC TTC CTC TTG CCT GCT GGA ATC TCA AAG  
P N T T Y D F L L P A G I S K

AAC ACT TCA ACT TTG AAT GGA CAT GAT GAG GCA GTT GTT GAA  
N T S T L N G H D E A V V E

A[T/C]G GAA CTT AAT [T/A][C/T]A AGT GGT ACC TAC TTA TCA AAC  
M/T E L N S/I S G T Y L S N

TTA TCT TCT AAA ACA ACT TTC CAC TGT TGC TTT TGG AGT GAG GAA  
L S S K T T F H C C F W S E E

GAT AAA AAC TGC TCT GTA CAT GCA GAC AAC ATT GCA GGG AAG G  
D K N C S V H A D N I A G K

(57) Abstract: The instant invention is drawn to the identification and use of information regarding one or more porcine leptin receptor (pLEPR) gene polymorphisms as a marker to identify animals to serve as breeding stock for enhanced pork production. One particular polymorphism of pLEPR gene results in either a methionine or a threonine amino acid residue at position 69 of the protein that the pLEPR genes encodes. The pLEPR gene is located on porcine chromosome 6 and have been shown to be associated with determination of daily feed intake, among other factors.

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